

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1(Currently amended). A fiber-to-the-home (FTTH) system, comprising:

at least one digital home communications terminal (DHCT) for receiving forward signals from a headend facility and for transmitting reverse RF signals to the headend facility, the reverse RF signals including header information and payload data;

a single wire return device (SWRD) for receiving the reverse RF signals from the at least one DHCT, demodulating the reverse RF signals via an upstream demodulator, and converting the demodulated signals to Ethernet signals;

an optical network terminal (ONT) coupled to the SWRD for converting the Ethernet signals to optical signals, and for transmitting the optical signals to ~~[[a]]~~ the headend facility via optical fiber; and

a plurality of downstream modulators located in the headend facility remote from the upstream demodulator with ~~for receiving the optical signals and for sending the forward signals,~~ ~~[[the]]~~ each downstream modulator associated with at least one corresponding DHCT and having an identification number that is inserted into the forward signals from the headend facility to identify that downstream modulator to the at least one corresponding DHCT, one of said downstream modulators associated with the at least one DHCT for receiving the optical signals and for sending the forward signals;

wherein the at least one DHCT inserts the ~~received~~ modulator identification number received within the forward signals from the headend facility into the reverse header information, and wherein the SWRD converts the modulator identification number within the reverse header information into an Internet Protocol address ~~indicative of the modulator identification number to~~ enable the reverse signals to be directed to said one downstream modulator.

2(Currently amended). The FTTH system of claim 1, wherein the SWRD comprises ~~comprising~~:

a diplex filter coupled for filtering forward signals and the reverse RF signals;

[[an]] the upstream demodulator coupled to the diplex filter for demodulating the reverse RF signals;

a microprocessor for converting the demodulated signals to Ethernet signals; and

a switch for receiving the Ethernet signals and any additional signals from a second source, the switch for combining the signals and for providing a combined signal to the ONT.

3(Currently amended). The FTTH system of claim 2, wherein the SWRD converts the identification number into the Internet Protocol address ~~number~~ via the microprocessor.

4(Original). The FTTH system of claim 1, wherein the ONT receives the forward signals, wherein the forward signals comprise at least one of a telephone signal, Ethernet signals, data signals, and audio/video signals, and wherein the ONT provides the at least one of Ethernet

signals, data signals, and audio/video signals to the SWRD and provides the telephone signals to a connected telephone.

5(Currently amended). A method for transmitting reverse signals in a fiber-to-the-home (FTTH) network, the FTTH network including a forward path and a reverse path, the method comprising ~~the steps of:~~

receiving forward signals from a headend facility and generating a reverse RF modulated signal including a corresponding downstream modulator identification number in header information in a digital host communications terminal (DHCT), wherein a plurality of downstream modulators are located in the headend facility with each downstream modulator associated with at least one corresponding DHCT and having an identification number that is inserted into the forward signals from the headend facility to identify that downstream modulator, and wherein said reverse RF modulated signal includes the identification number of the downstream modulator associated with the DHCT in header information;

providing the reverse RF modulated signal via coaxial cable to a single wire return device (SWRD);

demodulating the reverse RF modulated signal via an upstream demodulator remote from said plurality of downstream modulators to provide a reverse demodulated signal;

processing the reverse demodulated signal to provide a reverse Ethernet signal, wherein the identification number is converted into an Internet Protocol address that enables the reverse Ethernet signal to be directed to the associated downstream modulator;

converting the reverse Ethernet signal to a reverse optical signal in an optical network terminal (ONT); and

receiving the reverse optical signal at [[a]] the associated downstream modulator located in [[a]] the headend facility, wherein the downstream modulator transmits ~~the identification number~~ and a forward signal to the DHCT in response to the received reverse optical signal.

6(Currently amended). The ~~FTTH-system~~ method of claim 5, wherein the DHCT stores the identification number and inserts the received identification number into the reverse header information prior to transmitting to the SWRD.

7(Canceled).

8(Currently amended). The ~~FTTH-system~~ method of claim 5, ~~the method~~ further comprising ~~the further steps of:~~

receiving the forward signals at the ONT, wherein the forward signals comprise at least one of a telephone signal, Ethernet signals, data signals, and audio/video signals, and wherein the ONT provides the at least one of Ethernet signals, data signals, and audio/video signals to the SWRD and provides the telephone signals to a connected telephone.